

## DOCUMENT RESUME

ED 318 570

PS 018 755

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TITLE The Effect of a Full-Day Kindergarten on the Student's Academic Performance.  
PUB DATE May 90  
NOTE 25p.; Master of Science Thesis, Dominican College.  
PUB TYPE Reports - Research/Technical (143) --  
Dissertations/Theses - Master Theses (042)

EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS Adjustment (to Environment); Employed Parents;  
Enrichment Activities; \*Full Day Half Day Schedules;  
\*Kindergarten; Primary Education; Questionnaires;  
\*Teacher Attitudes; Teacher Student Relationship  
IDENTIFIERS Academic Stress

## ABSTRACT

The purpose of this study was to determine whether the length of the school day has an effect on kindergarten students' academic performance. Ten full-day and ten half-day kindergarten teachers were asked to complete a questionnaire regarding the effects of full-day kindergarten on students. A majority of the half-day teachers were concerned that: (1) children in full-day kindergarten programs leave school tired; (2) there is more academic pressure on children in full-day kindergarten programs; (3) too much school at an early age can have a negative effect; and (4) children need half-day programs as a transition time between home and school. The majority of full-day teachers surveyed thought that full-day programs: (1) meet the needs of working parents; (2) have more enrichment activities; and (3) provide more opportunities for teachers to work with students. (PCB)

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The Effect of a Full-Day Kindergarten  
On The Student's Academic Performance

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A Theses Presented to the Faculty of the Dominican  
College Department of Education in Partial Fulfillment of  
the Requirements for the Degree of Master of Science in  
Education: Curriculum and Instruction

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### Acknowledgments

I wish to thank Madalienne Peters, Ed.D., and Barry Kaufman, Ph.D for their support and professional assistance in the preparation of this study. I also want to thank all of the kindergarten teachers who took the time to fill out my questionnaire. A special thank you to Elizabeth Greer for all of her encouragment throughout this study.

### Abstract

The purpose of this study was to determine if the length of the school day has an effect on kindergarten students' academic performance. A review of the literature on this topic leads to conflicting conclusions. Full-day and half-day teachers were surveyed to determine their feelings on the length of the school day regarding kindergarten students. While both full-day kindergarten and half-day kindergarten schedules have advantages and disadvantages, either schedule can be a positive one for the kindergarten children, as long as the curriculum is developmentally appropriate.

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### Introduction

The controversy between full-day and half-day kindergarten has been evident in research since the first class went from half-day to full-day. This change of schedules varies from district to district. Some districts changed because of the difficulty caused by the bus schedules.

One of the main issues surrounding this dispute is the amount of time young children should spend in the classroom. It is important to examine the effect of the length of the school day in kindergarten and any increased academic pressure placed upon the students.

In a society where both parents work, or children come from single parent families, the decision to move to a full-day kindergarten could meet needs other than those of the child.

### Statement of The Problem

The purpose of this study is to examine the effect of the length of a school day on kindergarten students' academic performance. A full-day kindergarten class is between five and seven hours each day. A half-day kindergarten class, consists of three hours and twenty minutes, on the average.

Rationale

With more content being added to the kindergarten curriculum, there has been the inclination to increase the students' learning time as well (Glazer, 1985). The basic philosophy is that given more time in school, the children will do better in the upper grades than the students of a half-day kindergarten (Nieman & Gastright, 1981). This trend not only effects the kindergarten classroom, but the other grades as well. The theories on the full-day kindergarten classes vary from supportive to nonsupportive. Could too much school at a young age have a negative effect on children that could lead to a lack of success in their educational endeavors? If incoming kindergarten students faced a full-day rather than half-day program there would be no adjustment to school. One cannot assume that all children entering kindergarten have had the transition of home into preschool. Children of this age group need a half-day kindergarten as a transition time from home to their first full-day of school. Also there is no guarantee that the longer day would be a better learning experience for the students.

Background And Need

Nieman and Gastright (1981) researched the long term effect of full-day and half-day kindergarten classes. They found that after their nine year study, the students who participated in the study from the full-day kindergarten scored higher in reading and mathematics on the Metropolitan Readiness Test (MRT) than the students of the half-day kindergarten. Others (Gullo and Clements, 1984; Robertson, 1984) compared full-day kindergarten and half-day kindergarten schedules. Their findings indicated that there was no difference in student performance between the two schedules. The effects of a full-day kindergarten need further examination.

Review of LiteratureSupportive

Nieman and Gastright (1981) reported their findings on the long-term effects of full-day and half-day kindergartens. In September of 1970, 551 kindergarten students in the Cincinnati Public Schools were used for the sample group. Of the 551 students involved, 410 students were enrolled in all-day kindergarten classes, with the remaining 141 students enrolled in half-day

classes. Most of the students in the all-day classes had attended preschool, while most of the students in the half-day classes had not. All of the students were given a pretest in September of 1970. The pretest was the Kindergarten Gold Card, a locally developed kindergarten assessment tool. The average raw score of the full-day students was 1.6 points lower than the half-day students. Three months later, the students took the Boehm Test of Basic Concepts. The authors do not give the mean raw scores of this test, they only say that the scores "differ slightly". They do go on to say that statistically, the all-day students scored higher on each of the four subtests ( $p=.001$  on subtests 1, 2, and 3  $p=.01$  on subtest 4).

In April of 1971, one-third of the all-day students were randomly selected to take the MRT, with all of the half-day students participating. The all-day students had a mean raw score of 42, compared with the mean raw score of 23 that the half-day students received. In 1975, 70% of the students from the initial group were tested in fourth grade. Four years later, 50% of the students from the initial group were retested in eighth grade. The mean raw scores of full-day students were

higher than the half-day students on the MRT. By 1979, 9% of the full-day students had repeated a grade compared with 12% of the half-day students repeating a grade. Approximately 5% of the full-day students were placed in special education classes, while 10.6% percent of the half-day students were placed in special education classes. Although the all day students did score lower than the half-day students on the Kindergarten Gold Card, they scored higher in reading and mathematics than the half-day students.

Johnson (1987) evaluated the effects of the all-day kindergarten program in the Columbus Public Schools during the 1986-1987 school year. The all-day program was designed to prepare underachieving kindergarten students for first grade. There were 571 students in the program, of whom 379 were included in the evaluation sample. To be included in the sample, the students must have been in attendance for 80% of the program days, and must have taken both the pretest and posttest. In September of 1986, all of the teachers in the program attended one inservice meeting providing information to help them with their all-day program. The students were given a pretest using the Oral Comprehension Test of the

Comprehensive Test of Basic Skills, in September of 1986 and were posttested using the same test in April of 1987. In May of 1987, information on each student was completed by the teachers on the students' days of attendance in the program, hours of instruction per week, and each student's grade and gender. Information was also collected on the teacher's years of experience, number and type of advanced degrees, and whether the teacher had course work in reading as a subject area. The teachers also completed a Parent Involvement Survey each month, for eight months. In addition to the pretest, posttest and surveys, more information was collected by classroom observations from March 5th to March 17th, 1987. Each observer completed an evaluator's Visitation Log to document the record keeping, communication, student selection procedures, evaluation feedback, the facilities and the program materials. The objective of the program called for an average gain of 7.0 points for the 130 days of the program. The average normal curve equivalent showed a gain of 21.2 points in language. The goals of the all day program were successful. Based on these results, the all-day program was continued in the 1987-1988 school year.

Nonsupportive

Dunn (1987) examined the effect on student achievement when kindergarten was extended from a half-day to a full-day program. In 1982 and 1983, all of the students in the Community Schools District attended full-day kindergartens. The information gathered over two years was compared with the previous two years, 1980-1981 and 1981-1982, of half-day kindergartens. There were 134 students in the 1980-1981 and 1981-1982 half-day kindergartens, and 111 students in both the 1982-1983 and 1983-1984 full-day kindergartens. Information for all four years was collected at the beginning and end of kindergarten, at the end of first grade, and at the beginning of second grade. Initial intake information indicated the number of hours each student spent in preschool. Within the first quarter of the kindergarten year, the students were assessed with the Waupun screening strategies for motor and verbal development and audio and visual perception. The results of the screening showed that there were more dissimilarities in the two years of half-day and full-day programs, than between the two schedules. At the end of the school year, information

was collected from the MRT, the Waupun level, the number of days absent, and the number of students who were retained for a second year of kindergarten. The MRT showed no statistically significant differences between the two schedules. In the spring of first grade, the students were given the Macginitie Reading Test and in the fall of second grade, they were given the Iowa Test of Basic Skills. Dunn states that there was no statistical difference between full and half-day kindergarten and between consecutive and alternative day programs as measured by student scores. He goes on to say that more of a difference between student scores was noted between years within a program and between full and half-day programs.

Gullo and Clements (1984) compared the effects of a half-day, everyday kindergarten with the effects of an all-day, alternate day kindergarten. There were 99 students in the half-day, everyday class and 98 students in the all-day alternate day class in this study which took place during the 1982-1983 school year. The two schedules were compared to see if there was any effect on the students' academic achievement, classroom social behavior and attendance. When the students entered

kindergarten, they were all given the McCarthy Screening Test. No developmental differences between the two groups were reported. In April, the students were given the MRT to assess their academic achievement. This test showed no significant differences between the two groups. To assess classroom behavior, the students were given the Hahnemann Elementary Behavior Rating Scale. Out of the fifteen scales on the test, only two of the scales showed a significant difference between the two groups. The students in the all-day, alternative day schedule, rated higher in originality and were rated as being more independent learners than the half-day group. The all-day students were also rated to be more critical and competitive than those in the half-day class. The results of this study show that there are no significant differences between the two schedules on academic achievement, classroom social behavior or attendance of kindergarten students. Reliability and validity information for this measurement instrument was not provided.

Peskin (1987) points out that although research supports a full-day kindergarten program, such programs have not been in existence long enough to provide

sufficient empirical or longitudinal results. Peskin goes on to say that many of the studies are very subjective. The results of test scores are strongly related to the degree the teacher liked, or did not like, the full-day schedule. Peskin states that there are strong psychodevelopmental theories against the full-day schedule, but does not state the origin of these theories. The concerns of these theorists are: Many young children do not have the attention span for a full-day program; young children do not have the social and emotional maturity to stay in school all day; young children's fine motor and visual motor skills are not developed enough for the demands of a full-day kindergarten. Peskin goes on to say that given the lack of research in this area, the development of full-day kindergartens are premature. Reliability and validity information was not provided.

Robertson (1984) compared two half-day and two full-day kindergarten schedules in Aurora, Ohio, over a two year period. The study examined the effect of the schedule on the students' social and emotional development, achievement, and attendance. There were 99 children in the full-day class, and 98 children in the

half-day class. Students followed the same curriculum in each class for both years. To test social and emotional development, the teachers rated the students using the Hahnemann Elementary Schedule Behavior Rating Scale (HESB). Academic achievement was tested with the MRT, Form II, and attendance was measured by the total time missed from school. Findings indicated that the schedules made no difference in the students socially, emotionally, academically, or in terms of attendance. Reliability and validity information was not provided.

#### Method

Due to the conflicting opinions and research on full-day kindergartens, I developed a questionnaire to research kindergarten teachers' feelings on this subject (see Appendixes A and B). Questionnaires were sent to ten full-day kindergarten teachers and ten half-day kindergarten teachers in Northern California. Eight full-day teachers responded. Of the full-day teachers who responded, three had been teaching between eight and twenty years, and eight had only been teaching for three-and-one-half to one year. Eight half-day teachers also responded to the questionnaire. Three of the half-day teachers had been teaching between thirty-two

and fifteen years, while five had been teaching between ten-and-one-half to two years. The teachers gave their ratings on twenty statements regarding the effects of a full-day kindergarten. The statements on the questionnaire were gathered from various articles about full-day and half-day kindergartens, and also from discussions with full-day and half-day kindergarten teachers.

#### Procedure

Questionnaires were sent to three schools with full-day kindergarten programs and three schools with half-day kindergarten programs. Of the three schools with full-day programs, seven questionnaires were sent to one school, two to another school, and one to the third school. Two of the schools with half-day programs were sent three questionnaires each, while the third school was sent four questionnaires. the questionnaire statements were ranked on a seven point scale. The questionnaire statements were designed to record the opinions of full-day and half-day teachers regarding the effects that full-day kindergarten programs may have on the students.

# Effect of Full-Day

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## Results

The information from the questionnaire was collected by calculating the percentage of the responses for each point on the scale. The results used for the Summary of Survey Results are from responses of 50% or more, on one point of the scale.

### SUMMARY OF SURVEY RESULTS

|                                                                 | Full-Day Teachers |       |                |            |                   |          |                   |                | Half-Day Teachers |                |            |                   |          |                   |                |       |
|-----------------------------------------------------------------|-------------------|-------|----------------|------------|-------------------|----------|-------------------|----------------|-------------------|----------------|------------|-------------------|----------|-------------------|----------------|-------|
|                                                                 | Strongly Agree    | Agree | Somewhat Agree | No Opinion | Somewhat Disagree | Disagree | Strongly Disagree | Strongly Agree | Agree             | Somewhat Agree | No Opinion | Somewhat Disagree | Disagree | Strongly Disagree | Strongly Agree | Agree |
| Students Leave School Tired                                     | 12.5%             | 25.0% | 37.5%          | 0          | 0                 | 12.5%    | 12.5%             | 62.5%          | 0                 | 12.5%          | 12.5%      | 0                 | 12.5%    | 0                 |                |       |
| Full-Day Programs Add to Pressure                               | 12.5%             | 12.5% | 25.0%          | 0          | 0                 | 37.5%    | 12.5%             | 57.0%          | 0                 | 14.3%          | 14.3%      | 0                 | 14.3%    | 0                 |                |       |
| Full-Day Meets Day Care Needs                                   | 50.0%             | 12.5% | 25.0%          | 0          | 0                 | 0        | 12.5%             | 12.5%          | 0                 | 37.5%          | 12.5%      | 12.5%             | 12.5%    | 12.5%             |                |       |
| Too Much School Too Soon, At An Early Age Has a Negative Effect | 25.0%             | 0     | 50.0%          | 0          | 0                 | 12.5%    | 12.5%             | 14.3%          | 0                 | 71.4%          | 0          | 0                 | 14.3%    | 0                 |                |       |
| Need Half-Day For Transition Time                               | 25.0%             | 12.5% | 12.5%          | 0          | 25.0%             | 12.5%    | 12.5%             | 50.0%          | 25.0%             | 12.5%          | 0          | 12.5%             | 0        | 0                 |                |       |
| Most Students Have Had The Transition Of Preschool              | 0                 | 50.0% | 16.7%          | 34.0%      | 0                 | 0        | 0                 | 0              | 0                 | 42.8%          | 14.3%      | 14.3%             | 28.6%    | 0                 |                |       |
| Full-Day Has More One-To-One Opportunities                      | 0                 | 50.0% | 0              | 0          | 12.5%             | 0        | 37.5%             | 12.5%          | 12.5%             | 25.0%          | 12.5%      | 0                 | 25.0%    | 12.5%             |                |       |
| Half-Day Programs Offer Quality Time                            | 25.0%             | 37.5% | 25.0%          | 12.5%      | 0                 | 0        | 0                 | 62.5%          | 25.0%             | 12.5%          | 0          | 0                 | 0        | 0                 |                |       |
| Full-Day Programs Have More Enrichment Activities               | 62.5%             | 25.0% | 0              | 0          | 0                 | 12.5%    | 0                 | 0              | 25.0%             | 37.5%          | 0          | 0                 | 12.5%    | 25.0%             |                |       |
| Pressure To Learn Above Students' Abilities In Full-Day         | 14.3%             | 0     | 0              | 14.3%      | 14.3%             | 28.6%    | 28.6%             | 0              | 50.0%             | 0              | 50.0%      | 0                 | 0        | 0                 |                |       |

A majority of the half-day teachers are concerned with the following effects of full-day programs: students leave school tired; adds to academic pressures; too much school too soon at an early age can have a negative effect; students need a half-day as a transition time from home to school; there is more pressure for the students to learn above their abilities. The teachers agree that half-day programs offer students the quality time that can be the foundation of positive attitudes toward education.

The majority of full-day teachers surveyed believe full-day programs: do meet the day care needs of working parents; have more enrichment activities and experiences; have more one-to-one opportunities to work with the students. The full-day teachers agreed with the half-day teachers that too much school too soon at an early age could have a negative effect, but they also feel that many of the children entering kindergarten have had the transition of home into preschool.

#### Discussion

The purpose of this study was to determine if the length of the school day has an effect on kindergarten students' academic performance. After reviewing the

literature on this subject, the conclusions are conflicting. The longitudinal studies that stated the all-day kindergarten had a positive effect on the students' academic performance from grade to grade seem simplistic because there are too many influences between kindergarten and the upper grades. Other influences can have an effect on the students in their academic endeavors. Full-day and half day programs both have advantages and disadvantages, however, the length of the school day is only one part of the total kindergarten experience. As long as the curriculum is developmentally appropriate, as well as exciting, either type of schedule can have a positive effect on the students. Influences other than length of a kindergarten school day can have an effect on children's performance in school throughout the elementary grades.

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Appendix A

March 8, 1990

Dear Kindergarten Teachers:

For part of the Masters Degree Program at Dominican College, under the direction of Barry Kaufman, I am doing my thesis on the advantages (academic and social) of the students in a full-day kindergarten class.

The enclosed questionnaire is designed to gather information from full-day and half-day kindergarten teachers on their feelings about full-day programs.

I would greatly appreciate it if you would complete the questionnaire and return it by March 29th. For your convenience please find an enclosed, self addressed, stamped envelope. I realize that your time is valuable and I sincerely thank you for your cooperation.

The confidentiality of all responses is guaranteed.

Best Regards,

Sandy Greer-Smith

Appendix B

KINDERGARTEN QUESTIONNAIRE

How long have you been teaching kindergarten? \_\_\_\_\_

Are you presently teaching full-day or half-day  
kindergarten? \_\_\_\_\_

Please indicate your opinion of the value of  
these statements using the following key:

- |                   |                      |
|-------------------|----------------------|
| 1) Strongly Agree | 5) Somewhat disagree |
| 2) Agree          | 6) Disagree          |
| 3) Somewhat Agree | 7) Strongly Disagree |
| 4) No Opinion     |                      |

- 1) Students of an all-day kindergarten leave school  
tired. 1 2 3 4 5 6 7
- 2) An all-day kindergarten adds to the academic  
pressure of kindergarten students. 1 2 3 4 5 6 7
- 3) Children in an all-day kindergarten have better  
social skills than children in a half-day class.  
1 2 3 4 5 6 7
- 4) Children in a full-day kindergarten do better in  
first grade than those in a half-day kindergarten.  
1 2 3 4 5 6 7
- 5) A full-day kindergarten meets the day-care needs of  
working parents. 1 2 3 4 5 6 7
- 6) Too much school - too soon - at an early age could  
have a negative effect on children that could be  
carried throughout their lifetime, leading to a  
lack of success in their educational endeavors.  
1 2 3 4 5 6 7

- 7) Kindergarten students need a half-day kindergarten class as a transition time from home to their first full-day of school. 1 2 3 4 5 6 7
- 8) Children entering kindergarten have had the transition of home into preschool. 1 2 3 4 5 6 7
- 9) A longer day makes for a better learning experience for the students. 1 2 3 4 5 6 7
- 10) In a full-day kindergarten there is increased learning time. 1 2 3 4 5 6 7
- 11) In a full-day kindergarten the curriculum is more varied. 1 2 3 4 5 6 7
- 12) In a full-day kindergarten there are more opportunities to work with children on a one-to-one basis. 1 2 3 4 5 6 7
- 13) A full-day kindergarten is more convenient for the parents. 1 2 3 4 5 6 7
- 14) There are more academics in a full-day kindergarten, compared with a half-day kindergarten. 1 2 3 4 5 6 7
- 15) Full-day kindergarten fills the need for good, inexpensive day-care programs. 1 2 3 4 5 6 7
- 16) A half-day program can provide students with quality time that can be the foundation of positive attitudes toward education. 1 2 3 4 5 6 7
- 17) In full-day kindergarten, there is more time for enrichment activities and experiences. 1 2 3 4 5 6 7
- 18) All-day kindergartens will probably become more academic and more energy consuming as years go by. 1 2 3 4 5 6 7

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- 19) Children are pressured to learn above their  
abilities in a full-day kindergarten.  
1 2 3 4 5 6 7
- 20) Teachers of a full-day kindergarten have more prep  
work to add after school, than half-day  
kindergarten teachers. 1 2 3 4 5 6 7